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94-RF-05557

SITewide Groundwater Flow Modeling Reprioritization - NMH-069-94

In response to the Department of Energy memorandum EPD GSH 01527, EG&G has reprioritized the sitewide groundwater flow modeling efforts to focus on evaluating the potential for contaminant movement within the Walnut and Woman Creek basins. The previous sitewide modeling area has been reduced in size to accommodate this request. This change in scope did require the redevelopment of some of the work already completed for the sitewide model.

The technical approach to be used in this project will involve the application of two numerical models. A conservative groundwater flow field will be developed from numerical groundwater flow modeling covering an area which includes the Walnut and Woman Creek basins. The flow simulations will be done using conditions representative of the Spring 1992 time period. The flow modeling will be done using the United States Geological Survey MODFLOW flow model. The MODFLOW stream-aquifer interaction package will be used in the modeling to provide indications of the mass flux between the groundwater and surface-water systems.

To evaluate groundwater pathways and travel times, particle tracking simulations will be performed using the results of the MODFLOW groundwater flow simulations. This will be done using the PATH3D particle tracking software package. These simulations will not include fate and transport processes such as dispersion, diffusion, and distribution to the solid matrix. The inclusion of these processes would extend the project beyond the desired schedule. It is possible to include some simplistic retardation factors within the PATH3D particle tracking parameters.

To accommodate previous commitments, the MODFLOW and PATH3D simulations are scheduled to be completed by August 15, 1994. This will allow the inclusion of this information into the next version of the Well Evaluation Report. The results from this

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ZUTO, V M		
SING, T L		
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FLOCK, G H		
EWART, D L		
GER, S G	X	
LLIVAN, M T		
ANKSON, E R		
JINSON, R B		
SON, J M		
ANT, R D		
A. Baker	X	
DEL PINO	X	
# 3000	X	
2K POLITE	X	
BRES CONTROL	x	x
VN RECORDS		
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ASSIFICATION

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Gail Hill
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94-RF-05557
Page 2

work will be examined to determine if further investigation is necessary Additional analyses
will be included in Fiscal Year 1995 Work Packages as needed



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